

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-28 (Canceled).

Claim 29 (Currently Amended): A video camera arrangement comprising:

an image capture device having an associated lens with an adjustable focus and a zoom setting;

a face detector for detecting human faces in images captured by the image capture device and for generating face data identifying detected occurrences of faces in the captured images, the face detector (1) configured to detect faces at a plurality of different image scales, and (2) being responsive to receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of a face from the video camera to calculate an expected face size, and to obtain an expected face size (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size;

a data handling medium by which data representing the captured images is transmitted and/or stored, the data handling medium comprising a storage medium for storing the captured images and a metadata store for storing metadata associated with the captured images, the metadata including the face data generated by the face detector, the lens focus and the zoom setting; and

a processor for generating data to be transmitted or stored by the data handling medium in dependence on the detection of faces in the captured images.

Claim 30 (Previously Presented): A camera arrangement according to claim 29, in which the metadata store is arranged to store metadata on the same storage medium as the captured video material.

Claim 31 (Previously Presented): A camera arrangement according to claim 29, in which the metadata store comprises a removable storage device connectable to the camera arrangement.

Claim 32 (Previously Presented): A camera arrangement according to claim 29, in which the metadata store comprises:

a storage device external to the camera arrangement; and
a wireless link between the camera arrangement and the storage device.

Claim 33 (Previously Presented): A camera arrangement according to claim 29, in which:

the face detector is operable to detect a probability of a human face being present in each field or frame of the captured video material; and

the metadata store is operable to store a representation of at least one face from each contiguous sequence of captured video material, that face being the face having the highest associated probability from the contiguous sequence.

Claim 34 (Previously Presented): A camera arrangement according to claim 29, the camera arrangement being a unitary device.

Claim 35 (Previously Presented): A camera arrangement according to claim 29, the data handling medium being operable to store and/or transmit data representing captured audio material associated with the captured video material.

Claim 36 (Previously Presented): A camera arrangement according to claim 35, comprising a speech detector; and in which the face detector is responsive to a detection of speech in the captured audio material.

Claim 37 (Previously Presented): A camera arrangement according to claim 35, having two or more associated microphones, the processor and/or face detector being responsive to audio signals from the microphones to identify a face associated with a current speaker.

Claim 38 (Previously Presented): A camera arrangement according to claim 35, comprising logic, responsive to the face detector, to derive a subset of at least some of the captured images for storage and/or transmission by the data handling medium.

Claim 39 (Previously Presented): A camera arrangement according to claim 38, in which the subset comprises a cropped image containing at least each face detected by the face detector.

Claim 40 (Previously Presented): A camera arrangement according to claim 38, in which the subset, in respect of a captured image, comprises a number of cropped images equal to the number of detected faces in that captured image, each cropped image representing one detected face.

Claim 41 (Previously Presented): A camera arrangement according to claim 40, comprising a user control for selecting display properties of each of the cropped images.

Claim 42 (Previously Presented): A camera arrangement according to claim 41, in which:

the data handling medium is a transmission medium; and
the user control relates to a remote node of the transmission medium.

Claim 43 (Previously Presented): A camera arrangement according to claim 38, in which the subset, in respect of a captured image, comprises a cropped image representing a single detected face.

Claim 44 (Previously Presented): A camera arrangement according to claim 35, comprising logic to alter a degree of data compression applied to portions of the image in dependence upon whether a face has been detected at those portions.

Claim 45 (Previously Presented): A camera arrangement according to claim 44, being operable to apply a harsher data compression to portions of a captured image not detected to contain a face.

Claim 46 (Previously Presented): A camera arrangement according to claim 35, comprising logic, responsive to the face detector, to control the lens zoom and/or direction of the image capture device in dependence upon the face data.

Claim 47 (Previously Presented): A video conferencing arrangement comprising two or more camera arrangements according to claim 35, each camera arrangement having an associated display arrangement, the data handling medium being a transmission medium linking the two or more camera arrangements.

Claim 48 (Previously Presented): A security monitoring arrangement comprising a camera arrangement according to claim 35.

Claim 49 (Currently Amended): A method of operating a video camera arrangement having an image capture device with an associated lens having an adjustable focus and a zoom setting, a storage medium for storing captured images and a metadata store for storing metadata associated with the captured video material, the method comprising the steps of:

detecting human faces in captured images and generating face data identifying detected occurrences of faces in the captured images by a face detector configured to detect faces at a plurality of different image scales, the face ~~detecting responsive to~~ detector receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of a face from the video camera to calculate an expected face size and ~~to obtain an expected face size~~ (b) calculate a subset of the image scales for face detection within the captured images based on the expected face size; and

generating data representing the captured images for storage and/or transmission, in dependence on the face data generated by the face detector, wherein

metadata stored with the captured images includes the face data generated by the face detecting, the lens focus and the zoom setting.

Claim 50 (Previously Presented): A computer readable storage medium having program code that when executed performs a method according to claim 49.

Claims 51-53 (Canceled).

Claim 54 (Previously Presented): The computer readable storage medium according to Claim 50, further including a network for transmitting the program code for execution.

Claim 55 (Previously Presented): The video camera arrangement according to Claim 29, wherein the face detector is further responsive to a break between contiguous video shots to reset a face-tracking filter between the contiguous video shots.

Claim 56 (Previously Presented): The method according to Claim 49, wherein the face detecting is further responsive to a break between contiguous video shots to reset a face-tracking filter between the contiguous video shots.

Claim 57 (New): A video camera arrangement comprising:
an image capture device having an associated lens with an adjustable focus and a zoom setting;
a face detector for detecting human faces in images captured by the image capture device and for generating face data identifying detected occurrences of faces in the captured images, the face detector (1) configured to detect faces at a plurality of different image scales, and (2) receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of a face from the video camera to calculate an expected face size and

(b) calculate face detection weighting factors for the image scales to variably weight the image scales for face detection within the captured images based on the expected face size;

a data handling medium by which data representing the captured images is transmitted and/or stored, the data handling medium comprising a storage medium for storing the captured images and a metadata store for storing metadata associated with the captured images, the metadata including the face data generated by the face detector, the lens focus and the zoom setting; and

a processor for generating data to be transmitted or stored by the data handling medium in dependence on the detection of faces in the captured images.

Claim 58 (New): A method of operating a video camera arrangement having an image capture device with an associated lens having an adjustable focus and a zoom setting, a storage medium for storing captured images and a metadata store for storing metadata associated with the captured video material, the method comprising the steps of:

detecting human faces in captured images and generating face data identifying detected occurrences of faces in the captured images by a face detector configured to detect faces at a plurality of different image scales, the face detector receiving a lens focus and a zoom setting from the image capture device to (a) determine a distance of a face from the video camera to calculate an expected face size and (b) calculate face detection weighting factors for the image scales to variably weight the image scales for face detection within the captured images based on the expected face size; and

generating data representing the captured images for storage and/or transmission, in dependence on the face data generated by the face detector, wherein

metadata stored with the captured images includes the face data generated by the face detecting, the lens focus and the zoom setting.